

1 **Protection for Threatened and Impaired Watersheds, 2000**

2 Revised Final Rule Language

3
4 **Amend § 895 Abbreviations Applicable Throughout Chapter.**

5 **Note: The following five abbreviations may be added to this section in**
6 **alphabetic order.**

7 CDF California Department of Forestry and Fire Protection

8
9 DFG California Department of Fish and Game

10
11 HCP Habitat Conservation Plan

12
13 NMFS National Marine Fisheries Service

14
15 RWQOCB Regional Water Quality Control Board

16
17 Note: Authority cited: Sections 4551, 4551.5 and 21082, Public Resources
18 Code. Reference: Sections 4511, 4512, 4513, 4521.3, 4522, 4522.5, 4523-4525,
19 4525.3, 4525.5, 4525.7, 4526, 4526.5, 4527, 4527.5, 4528, 4551, 4551.5, 4552,
20 4582 and 21080.5, Public Resources Code.

21 **Amend § 895.1. Definitions.**

22 **Note: The following nine definitions may be added to this section in**
23 **alphabetic order.**

24 "Bankfull stage" means the stage that occurs when discharge fills the
25 entire channel cross section without significant inundation of the adjacent
 floodplain, and has a recurrence interval of 1.5 to 2.0 years.

1 "Beneficial Functions of Riparian Zone" means the specific role of the
2 riparian zone to provide protection for water temperature control, streambed
3 and flow modification by large woody debris, filtration of organic and
4 inorganic material, upslope stability, bank and channel stabilization and
5 vegetative structure diversity for fish and wildlife habitat.

6
7 "Channel zone" means that area that includes a watercourse's channel at
8 bankfull stage and a watercourse's floodplain, encompassing the area between
9 the watercourse transition lines.

10
11 "Inner Gorge" means a geomorphic feature formed by coalescing scars
12 originating from landsliding and erosional processes caused by active stream
13 erosion. The feature is identified as that area situated immediately
14 adjacent to the stream channel below the first break in slope.

15
16 ~~"Saturated soil conditions" means 1) the wetness of the soil within a~~
17 ~~yarding area such that soil strength is exceeded and displacement from timber~~
18 ~~operations will occur. It is evidenced by soil moisture conditions that~~
19 ~~result in: a) reduced traction by equipment as indicated by spinning or~~
20 ~~churning of wheels or tracks in excess of normal performance, or b)~~
21 ~~inadequate traction without blading wet soil or, c) soil displacement in~~
22 ~~amounts that cause visible increase in turbidity of the downstream waters in~~
23 ~~a receiving Class I or II watercourse or lake. Soils frozen to a depth~~
24 ~~sufficient to support equipment weight are excluded. 2) soil moisture~~
25 ~~conditions on roads and landings, in excess of that which occurs from normal~~
~~road watering or light rainfall that will result in the significant loss of~~

~~surface material from the road and landings in amounts that cause visible~~
~~increase in turbidity of the downstream waters in a receiving Class I or II~~
~~watercourse or lake~~ that site conditions are sufficiently wet that timber
operations displace soils in yarding or mechanical site preparation areas or
displace road and landing surface materials in amounts sufficient to cause a
turbidity increase in drainage facilities that discharge into Class I, II,
III, or IV waters, or in downstream Class I, II, III, or IV waters that is
visible or would violate applicable water quality requirements.

In yarding and site preparation areas, this condition may be evidenced
by: a) reduced traction by equipment as indicated by spinning or churning of
wheels or tracks in excess of normal performance, b) inadequate traction
without blading wet soil, c) soil displacement in amounts that cause visible
increase in turbidity of the downstream waters in a receiving Class I, II,
III, or IV waters, or d) creation of ruts greater than would be normal
following a light rainfall.

On logging roads and landing surfaces, this condition may be evidenced
by a) reduced traction by equipment as indicated by spinning or churning of
wheels or tracks in excess of normal performance, b) inadequate traction
without blading wet soil, c) soil displacement in amounts that cause visible
increase in turbidity of the downstream waters in receiving Class I, II, III,
or IV waters, d) pumping of road surface materials by traffic, or e) creation
of ruts greater than would be created by traffic following normal road
watering, which transports surface material to a drainage facility that
discharges directly into a watercourse.

Soils or road and landing surfaces that are hard frozen are excluded
from this definition.

1 "Stable operating surface" means that throughout the period of use, the
2 operating surface of a logging road or landing does not either (1) generate
3 waterborne sediment in amounts sufficient to cause a turbidity increase in
4 downstream Class I, II, III, or IV waters that is visible or would violate
5 applicable water quality requirements; or (2) channel water for more than 50
6 feet that is discharged into Class I, II, III, or IV waters.

7
8 "Watercourse or Lake Transition Line"

9 (a) for a watercourse with an unconfined channel (a channel with a
10 valley to width ratio at bankfull stage of 4 or greater) means that line
11 defined by the landward margin of the most active portion of the channel zone
12 area readily identified in the field by:

13 (1) no soil development, and

14 (2) riparian vegetation dominated by riverine hardwoods and occasional
15 conifers.

16 If field identification is ambiguous, identification of the 20-year
17 flood stage would delimit this portion of the channel zone.

18 (b) for a watercourse with a confined channel means that line ~~closest~~
19 ~~to the watercourse or lake where riparian vegetation is permanently~~
20 ~~established~~ that is the outer boundary of a watercourse's 20-year return
21 interval flood event floodplain. This outer boundary corresponds to an
22 elevation equivalent to twice the maximum depth of the adjacent riffle at
23 bankfull stage. The bankfull stage elevation shall be determined by field
24 indicators and may be verified by drainage area/bankfull discharge
25 relationships.

1 (c) for a lake, it is that line closest to the lake where riparian
2 vegetation is permanently established.

3
4 "Watersheds with threatened or impaired values" means any planning
5 watershed where populations of anadromous salmonids that are listed as
6 threatened, endangered, or candidate under the State or Federal Endangered
7 Species Acts with their implementing regulations, are currently present or
8 can be restored.

9
10 **Note: The following additional subsection shall be added to the very end of**
11 **this section (14 CCR § 895.1) following all other rule language.**

12
13 (1) The amendments to 14 CCR § 895.1 adopted on March 15, 2000 and
14 April 4, 2000, which became effective July 1, 2000, shall expire on December
15 31, 2000.

16
17 Note: Authority cited: Sections 4551, 4551.5, 4553, 4561, 4561.5, 4561.6,
18 4562, 4562.5, 4562.7 and 4591.1, Public Resources Code. Reference: Sections
19 4512, 4513, 4526, 4551, 4551.5, 4561, 4561.6, 4562, 4562.5, 4562.7, 4583.2,
20 4591.1, 21001(f), 21080.5, 21083.2 and 21084.1, Public Resources Code; CEQA
Guidelines Appendix K (printed following Section 15387 of Title 14 Cal.Code
of Regulations), and *Laupheimer v. State* (1988) 200 Cal.App.3d 440; 246
Cal.Rptr. 82.

21
22 **Amend § 898 Feasibility Alternatives**

23 After considering the rules of the Board and any mitigation measures
24 proposed in the plan, the RPF shall indicate whether the operation would have
any significant adverse impact on the environment. On TPZ lands, the
25 harvesting per se of trees shall not be presumed to have a significant
adverse impact on the environment. If the RPF indicates that significant
adverse impacts will occur, the RPF shall explain in the plan why any
alternatives or additional mitigation measures that would significantly
reduce the impact are not feasible.

1 Cumulative impacts shall be assessed based upon the methodology
2 described in Board Technical Rule Addendum Number 2, Forest Practice
3 Cumulative Impacts Assessment Process and shall be guided by standards of
4 practicality and reasonableness. The RPF's and plan submitter's duties under
5 this section shall be limited to closely related past, present and reasonably
6 foreseeable probable future projects within the same ownership and to matters
7 of public record. The Director shall supplement the information provided by
8 the RPF and the plan submitter when necessary to insure that all relevant
9 information is considered.

10 When assessing cumulative impacts of a proposed project on any portion
11 of a waterbody that is located within or downstream of the proposed timber
12 operation and that is listed as water quality limited under Section 303(d) of
13 the Federal Clean Water Act, the RPF shall assess the degree to which the
14 proposed operations would result in impacts that may combine with existing
15 listed stressors to impair a waterbody's beneficial uses, thereby causing a
16 significant adverse effect on the environment. The plan preparer shall
17 provide feasible mitigation measures to reduce any such impacts from the plan
18 to a level of insignificance, and may provide measures, insofar as feasible,
19 to help attain water quality standards in the listed portion of the
20 waterbody.

21 The Director's evaluation of such impacts and mitigation measures will
22 be done in consultation with the appropriate RWQCB.

23 (a) The amendments to 14 CCR § 898 that became effective July 1, 2000
24 shall expire on December 31, 2000.

25 Note: Authority cited: Sections 4551 and 4553, Public Resources Code.
Reference: Sections 4512, 4513, 4551.5, and 4582.75, Public Resources Code;
and *Laupheimer v. State* (1988) 200 Cal.App.3d 440; 246 Cal.Rptr. 82.

1 **Amend § 898.2 Special Conditions Requiring Disapproval of Plans**

2 The Director shall disapprove a plan as not conforming to the rules of
3 the Board if any one of the following conditions exist:

4 (a) Boundaries of the area to be harvested are not clearly delineated
5 in the plan.

6 (b) Public acquisition of the parcel for purposes which would be
7 impaired by timber harvesting, is legislatively authorized, funded and
8 imminent.

9 (c) There is evidence that the information contained in the plan is
10 incorrect, incomplete or misleading in a material way, or is insufficient to
11 evaluate significant environmental effects. The sufficiency of the
12 information provided in a THP to evaluate significant environmental effects
13 shall be judged in light of what is reasonable and necessary.

14 (d) Implementation of the plan as proposed would result in either a
15 "taking" or finding of jeopardy of wildlife species listed as rare,
16 threatened or endangered by the Fish and Game Commission, the National Marine
17 Fisheries Service, or Fish and Wildlife Service, or would cause significant,
18 long-term damage to listed species. The Director is not required to
19 disapprove a plan which would result in a "taking" if the "taking" is
20 incidental and is authorized by a wildlife agency acting within its authority
21 under state or federal endangered species acts.

22 (e) Implementation of the plan would irreparably damage plant species
23 listed as rare or endangered by the Department of Fish and Game and when the
24 timber owner fails to comply with F&GC 1913.

25 (f) Implementation of the plan as proposed would result in the taking
of an individual Northern Spotted Owl prohibited by the Federal Endangered
Species Act.

(g) Implementation of the plan as proposed would not achieve maximum
sustained production of high quality timber products as provided for by the
rules of the Board, and by the intent of the Act.

(h) Implementation of the plan as proposed would cause a violation of
any requirement of an applicable water quality control plan adopted or
approved by the State Water Resources Control Board.

(i) The amendments to 14 CCR § 898.2 that became effective July 1, 2000
shall expire on December 31, 2000.

1 Note: Authority cited: Sections 4551, 4555 and 4582, Public Resources Code.
2 Reference: Sections 2053, 2080.1, 2090-2097, 2830 and 2835, Fish and Game
3 Code; Sections 4555, 4582.7 and 4582.75, Public Resources Code; Section
4 51115.1, Government Code; the federal Endangered Species Act of 1973, 16
5 U.S.C. et seq.; and *Laupheimer v. State* (1988) 200 Cal.App.3d 440; 246
6 Cal.Rptr. 82.

7 **Amend §§ 914.8, 934.8, and 954.8 Tractor Road Watercourse Crossing**

8 Watercourse crossing facilities on tractor roads shall be planned,
9 constructed, maintained, and removed according to the following standards:

10 (a) The number of crossings shall be kept to a minimum. Existing
11 crossings locations shall be used wherever feasible.

12 (b) A prepared watercourse crossing using a structure such as a bridge,
13 culvert, or temporary log culvert shall be used to protect the watercourse
14 from siltation where tractor roads cross a watercourse in which water may be
15 present during the life of the crossing.

16 (c) Crossing facilities on watercourses that support fish shall allow
17 for unrestricted passage of all life stages of fish that may be present, and
18 for unrestricted passage of water. Such crossing facilities shall be fully
19 described in sufficient clarity and detail to allow evaluation by the review
20 team and the public, provide direction to the LTO for implementation, and
21 provide enforceable standards for the inspector.

22 (d) Watercourse crossing facilities not constructed to permanent
23 crossing standards on tractor roads shall be removed before the beginning of
24 the winter period. If a watercourse crossing is to be removed, it shall be
25 removed in accordance with 14 CCR 923.3(d) [943.3(d), 963.3(d)].

(e) If the watercourse crossing involves a culvert, the minimum
diameter shall be stated in the THP and the culvert shall be of a sufficient
length to extend beyond the fill material.

(f) Consistent with the protection of water quality, exceptions may be
provided through the Fish and Game Code and shall be indicated in the plan.

(g) The amendments to 14 CCR § 914.8 [934.8, 954.8] that became
effective July 1, 2000 shall expire on December 31, 2000.

1 Note: Authority cited: Sections 4551, 4551.5, and 4553, Public Resources
2 Code. Reference: Sections 4512, 4513, 4527, 4562.5, 4562.7, and 4582, Public
3 Resources Code.

4 **Amend §§ 916, 936, and 956 Intent of Watercourse and Lake Protection.**

5 The purpose of this article is to ~~insure the protection of~~ ensure that
6 the beneficial uses that are derived from the physical form, water quality,
7 and biological characteristics of watercourses and lakes, native aquatic and
8 riparian species, and the beneficial functions of riparian zones are
9 protected from potentially significant adverse site-specific and cumulative
10 impacts associated with timber operations.

11 It is the intent of the Board to restore, enhance, and maintain the
12 productivity of timberlands while providing equal consideration for the
13 beneficial uses of water. Further, it is the intent of the Board to clarify
14 and assign responsibility, ~~to recognize~~ for recognition of potential and
15 existing impacts of timber operations on the beneficial uses of water,
16 watercourses and lakes, native aquatic and riparian-associated species, and
17 the beneficial functions of riparian zones and to ensure adoption of feasible
18 measures to prevent water pollution related to timber harvesting effectively
19 achieve compliance with this article. Further, it is the intent of the Board
20 that the evaluations that are made, and the measures that are taken or
21 prescribed, be documented in a manner that clearly and accurately represents
22 those existing conditions and those measures. "Evaluations made" pertain to
23 the assessment of the conditions of the physical form, water quality, and
24 biological characteristics of watercourses and lakes, including cumulative
25 impacts affecting the beneficial uses of water on both the area of planned
logging operations and in the Watershed Assessment Area (WAA). "Measures

1 taken" pertain to the procedures used or prescribed for the restoration,
2 enhancement, and maintenance of the beneficial uses of water.

3 All provisions of this article shall be applied in a manner, which
4 complies with the following:

5 (a) During and following timber operations, the beneficial uses of
6 water, native aquatic and riparian-associated species, and the beneficial
7 functions of riparian zones shall be maintained where they are in good
8 condition, protected where they are threatened, and insofar as feasible,
9 restored where they are impaired.

10 (b) Protection of the quality and beneficial uses of water during the
11 planning, review, and conduct of timber operations shall comply with all
12 applicable legal requirements including those set forth in any applicable
13 water quality control plan adopted or approved by the State Water Resources
14 Control Board. At a minimum, the LTO shall not do either of the following
15 during timber operations:

16 (1) Place, discharge, or dispose of or deposit in such a manner as to
17 permit to pass into the waters of the state, any substances or materials,
18 including, but not limited to, soil, silt, bark, slash, sawdust, or
19 petroleum, in quantities deleterious to fish, wildlife, beneficial functions
20 of riparian zones, or the quality and beneficial uses of water;

21 (2) Remove water, trees or large woody debris from a watercourse or
22 lake, the adjacent riparian area, or the adjacent flood plain in quantities
23 deleterious to fish, wildlife, beneficial functions of riparian zones, or the
24 quality and beneficial uses of water.

25 (c) Protecting and restoring native aquatic and riparian-associated
species, the beneficial functions of riparian zones and the quality and

beneficial uses of water shall be given equal consideration as a management objective within any prescribed WLPZ and within any ELZ or EEZ designated for watercourse or lake protection.

(d) The measures set forth in this Section are meant to enforce the public's historical and legal interest in protection for wildlife, fish, and water quality and are to be used to guide timberland owners in meeting their legal responsibilities to protect public trust resources.

(e) The amendments to 14 CCR §§ 916 [936, 956] that became effective July 1, 2000 shall expire on December 31, 2000.

Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 4512, 4513, 4551.5, 4552, 4562.5, 4562.7, 21001(b), (f), 21002 and 21002.1, Public Resources Code; and Sections 100, 1243, 1243.5, 13001, 13001(f), 13146 and 13147, Water Code; ~~and 33 USC Section 1288(b)(2)(F).~~

Amend §§ 916.2, 936.2, and 956.2 Protection of the Beneficial Uses of Water and Riparian Functions.

(a) The measures used to protect ~~the beneficial uses of water for each~~ watercourse and lake in a logging area shall be determined by the presence and condition of the following values:

(1) The existing and restorable quality and beneficial uses of water as specified by the applicable water quality control plan and as further identified and refined during preparation and review of the plan.

(2) The restorable uses of water for fisheries as identified by the ~~Department of Fish and Game~~ DFG or as further identified and refined during preparation and review of the plan.

1 (3) Riparian habitat that provides for the biological needs of the
2 fish and wildlife native aquatic and riparian-associated species provided by
3 the riparian habitat as specified in 14 CCR 916.4(b) [936.4(b), 956.4(b)].

4 (4) Sensitive ~~near stream~~ conditions near watercourses and lakes as
5 specified in 14 CCR 916.4(a) [936.4(a), 956.4(a)].

6 These values shall be protected from potentially significant adverse
7 impacts from timber operations and restored to good condition, where needed,
8 through a combination of the rules and plan-specific mitigation.

9 (b) The State's waters are grouped into four classes based on key
10 beneficial uses. These classifications shall be used to determine the
11 appropriate minimum protection measures to be applied ~~to the State's waters~~
12 during the conduct of timber operations. The basis for classification
13 (characteristics and key beneficial uses) are set forth in 14 CCR 916.5
14 [936.5, 956.5], Table 1 and the range of minimum protective measures
15 applicable to each class are contained in ~~Sections~~ 14 CCR 916.3 [936.3,
16 956.3], 916.4 ~~(e)~~ [936.4, 956.4], and 916.5 [936.5, 956.5]

17 (c) When the protective measures contained in 14 CCR 916.5 [936.5,
18 956.5] are not adequate to provide protection to beneficial uses, feasible
19 protective measures shall be developed by the RPF or proposed by the Director
20 under the provisions of 14 CCR 916.6 [936.6, 956.6], Alternative Watercourse
21 and Lake Protection, and incorporated in the ~~THP~~ plan when approved by the
22 Director.

23 (d) The amendments to 14 CCR § 916.2 [936.2, 956.2] that became
24 effective July 1, 2000 shall expire on December 31, 2000.

Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 751, 4512, 4513, 4551.5, 21000(g), 21001(b) and 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code; and Sections 1600 and 5650(c), Fish and Game Code; ~~and 33 USC Section 1288(b)(2)(F).~~

~~§§ 916.9 [936.9, 956.9] Exclusion of Material from Streams and Lakes.~~

Adopt §§ 916.9, 936.9, and 956.9 Protection and Restoration in Watersheds with Threatened or Impaired Values.

In addition to all other district Forest Practice Rules, the following requirements shall apply in any planning watershed with threatened or impaired values:

(a) GOAL - Every timber operation shall be planned and conducted to prevent deleterious interference with the watershed conditions that primarily limit the values set forth in 14 CCR 916.2 [936.2, 956.2](a) (e.g., sediment load increase where sediment is a primary limiting factor; thermal load increase where water temperature is a primary limiting factor; loss of instream large woody debris or recruitment potential where lack of this value is a primary limiting factor; substantial increase in peak flows or large flood frequency where peak flows or large flood frequency are primary limiting factors). To achieve this goal, every timber operation shall be planned and conducted to meet the following objectives where they affect a primary limiting factor:

(1) Comply with the terms of a Total Maximum Daily Load (TMDL) that has been adopted to address factors that may be affected by timber operations if a TMDL has been adopted, or not result in any measurable sediment load increase to a watercourse system or lake.

1 (2) Result in any measurable decrease in the stability of a watercourse
2 channel or of a watercourse or lake bank.

3 (3) Result in any measurable blockage of any aquatic migratory routes
4 for anadromous salmonids or listed species.

5 (4) Result in any measurable stream flow reductions during critical low
6 water periods except as part of an approved water drafting plan pursuant to
7 14 CCR 916.9(r) [936.9(r), 956.9(r)].

8 (5) Consistent with the requirements of 14 CCR § 916.9(i), 14 CCR §
9 936.9(i), or 14 CCR § 956.9(i); protect, maintain, and restore trees
10 (especially conifers), snags, or downed large woody debris that currently, or
11 may in the foreseeable future, provide large woody debris recruitment needed
12 for instream habitat structure and fluvial geomorphic functions.

13 (6) Consistent with the requirements of 14 CCR § 916.9(g), 14 CCR §
14 936.9(g), or 14 CCR § 956.9(g); protect, maintain, and restore the quality
15 and quantity of vegetative canopy needed to: (A) provide shade to the
16 watercourse or lake, (B) minimize daily and seasonal temperature
17 fluctuations, (C) maintain daily and seasonal water temperatures within the
18 preferred range for anadromous salmonids or listed species where they are
19 present or could be restored, and (D) provide hiding cover and a food base
20 where needed.

21 (7) Result in no substantial increases in peak flows or large flood
22 frequency.

23 (b) Pre-plan adverse cumulative watershed effects on the populations
24 and habitat of anadromous salmonids shall be considered. The plan shall
25 specifically acknowledge or refute that such effects exist. Where

1 appropriate, the plan shall set forth measures to effectively reduce such
2 effects.

3 (c) Any timber operation or silvicultural prescription within 150 feet
4 of any Class I watercourse or lake transition line or 100 feet of any Class
5 II watercourse or lake transition line shall have protection, maintenance, or
6 restoration of the beneficial uses of water or the populations and habitat of
7 anadromous salmonids or listed aquatic or riparian-associated species as
8 significant objectives.

9 Additionally, for evenaged regeneration methods and rehabilitation with
10 the same effects as a clearcut that are adjacent to a WLPZ, a special
11 operating zone shall retain understory and mid-canopy conifers and hardwoods.
12 These trees shall be protected during falling, yarding and site preparation
13 to the extent feasible. If trees that are retained within this zone are
14 knocked down during operations, that portion of the trees that is greater
15 than 6" in diameter shall remain within the zone as Large Woody Debris. The
16 zone shall be 25 feet above Class I WLPZs with slopes 0-30% and 50 feet above
17 Class I WLPZs with slopes > 30%.

18 (d)(1) The plan shall fully describe: (A) the type and location of each
19 measure needed to fully offset sediment loading, thermal loading, and
20 potential significant adverse watershed effects from the proposed timber
21 operations, and (B) the person(s) responsible for the implementation of each
22 measure, if other than the timber operator.

23 (2) In proposing, reviewing, and approving such measures, preference
24 shall be given to the following: (A) measures that are both onsite (i.e., on
25 or near the plan area) and in-kind (i.e., erosion control measures where
sediment is the problem), and (B) sites that are located to maximize the

benefits to the impacted portion of a watercourse or lake. Out-of-kind measures (i.e., improving shade where sediment is the problem) shall not be approved as meeting the requirements of this subsection.

(e) There shall be no timber operations within the channel zone with the following exceptions:

(1) timber harvesting that is directed to improve salmonid habitat through the limited use of the selection or commercial thinning silvicultural methods with review and comment by DFG.

(2) timber harvesting necessary for the construction or reconstruction of approved watercourse crossings.

(3) timber harvesting necessary for the protection of public health and safety.

(4) to allow for full suspension cable yarding when necessary to transport logs through the channel zone.

In all instances where trees are proposed to be felled within the channel zone, a base mark shall be placed below the cut line of the harvest trees within the zone. Such marking shall be completed by the RPF that prepared the plan prior to the preharvest inspection.

(f) The minimum WLPZ width for Class I waters shall be 150 feet from the watercourse or lake transition line.

(g) Within a WLPZ for Class I waters, at least 85 percent overstory canopy shall be retained within 75 feet of the watercourse or lake transition line, and at least 65 percent overstory canopy within the remainder of the WLPZ. The overstory canopy must be composed of at least 25% overstory conifer canopy post-harvest.

1 Harvesting of hardwoods shall only occur for the purpose of enabling
2 conifer regeneration.

3 (h) For Class I waters, any plan involving timber operations within the
4 WLPZ shall contain the following information:

5 (1) A clear and enforceable specification of how any disturbance or log
6 or tree cutting and removal within the Class I WLPZ shall be carried out to
7 conform with 14 CCR 916.2 [936.2, 956.2](a) and 916.9 [936.9, 956.9](a).

8 (2) A description of all existing permanent crossings of Class I waters
9 by logging roads and clear specification regarding how these crossings are to
10 be modified, used, and treated to minimize risks, giving special attention to
11 allowing fish to pass both upstream and downstream during all life stages.

12 (3) Clear and enforceable specifications for construction and operation
13 of any new crossing of Class I waters to prevent direct harm, habitat
14 degradation, water velocity increase, hindrance of fish passage, or other
15 potential impairment of beneficial uses of water.

16 (i) Recruitment of large woody debris for aquatic habitat in Class I
17 anadromous fish-bearing or restorable waters shall be ensured by retaining
18 the ten largest dbh conifers (live or dead) per 330 feet of stream channel
19 length that are the most conducive to recruitment to provide for the
20 beneficial functions of riparian zones. The retained conifers shall be
21 selected from within the plan area that lies within 50 feet of the
22 watercourse transition line.

23 The RPF may propose alternatives to substitute smaller diameter trees,
24 trees that are more than 50 feet from the watercourse transition line, or
25 other alternatives on a site specific basis. The RPF must explain and
justify in the THP why the proposed alternative is more conducive to current

1 and long-term Large Woody Debris recruitment, shading, bank stability, and
2 the beneficial functions of riparian zones.

3 (j) Where an inner gorge extends beyond a Class I WLPZ and slopes are
4 greater than 55%, a special management zone shall be established where the
5 use of evenaged regeneration methods is prohibited. This zone shall extend
6 upslope to the first major break-in-slope to less than 55% for a distance of
7 100 feet or more, or 300 feet as measured from the watercourse or lake
8 transition line, which ever is less. All operations on slopes exceeding 65%
9 within an inner gorge shall be reviewed by a Certified Engineering Geologist
10 prior to plan approval, regardless of whether they are proposed within a WLPZ
11 or outside of a WLPZ.

12 (k) From October 15 to May 1, the following shall apply: (1) no timber
13 operations shall take place unless the approved plan incorporates a complete
14 winter period operating plan pursuant to 14 CCR 914.7(a) [934.7(a),
15 954.7(a)], (2) unless the winter period operating plan proposes operations
16 during an extended period with low antecedent soil wetness, no tractor roads
17 shall be constructed, reconstructed, or used on slopes that are over 40
18 percent and within 200 feet of a Class I, II, or III watercourse, as measured
19 from the watercourse or lake transition line, and (3) operation of trucks and
20 heavy equipment on roads and landings shall be limited to those with a stable
21 operating surface.

22 (1) Construction or reconstruction of logging roads, tractor roads, or
23 landings shall not take place during the winter period unless the approved
24 plan incorporates a complete winter period operating plan pursuant to 14 CCR
25 914.7(a) [934.7(a), 954.7(a)] that specifically address such road
construction. Use of logging roads, tractor roads, or landings shall not take

place at any location where saturated soil conditions exist, where a stable logging road or landing operating surface does not exist, or when visibly turbid water from the road, landing, or skid trail surface or inside ditch may reach a watercourse or lake. Grading to obtain a drier running surface more than one time before reincorporation of any resulting berms back into the road surface is prohibited.

(m) All tractor roads shall have drainage and/or drainage collection and storage facilities installed as soon as practical following yarding and prior to either (1) the start of any rain which causes overland flow across or along the disturbed surface within a WLPZ or within any ELZ or EEZ designated for watercourse or lake protection, or (2) any day with a National Weather Service forecast of a chance of rain of 30 percent or more, a flash flood warning, or a flash flood watch.

(n) Within the WLPZ, and within any ELZ or EEZ designated for watercourse or lake protection, treatments to stabilize soils, minimize soil erosion, and prevent the discharge of sediment into waters in amounts deleterious to aquatic species or the quality and beneficial uses of water, or that threaten to violate applicable water quality requirements, shall be applied in accordance with the following standards:

(1) The following requirements shall apply to all such treatments.

(A) They shall be described in the plan.

(B) For areas disturbed from May 1 through October 15, treatment shall be completed prior to the start of any rain that causes overland flow across or along the disturbed surface.

(C) For areas disturbed from October 16 through April 30, treatment shall be completed prior to any day for which a chance of rain of 30 percent

1 or greater is forecast by the National Weather Service or within 10 days,
2 whichever is earlier.

3 (2) The traveled surface of logging roads shall be treated to prevent
4 waterborne transport of sediment and concentration of runoff that results
5 from timber operations.

6 (3) The treatment for other disturbed areas, including: (A) areas
7 exceeding 100 contiguous square feet where timber operations have exposed
8 bare soil, (B) approaches to tractor road watercourse crossings between the
9 drainage facilities closest to the crossing, (C) road cut banks and fills,
10 and (D) any other area of disturbed soil that threatens to discharge sediment
11 into waters in amounts deleterious to the quality and beneficial uses of
12 water, may include, but need not be limited to, mulching, rip-rapping, grass
13 seeding, or chemical soil stabilizers. Where straw, mulch, or slash is used,
14 the minimum coverage shall be 90%, and any treated area that has been subject
15 to reuse or has less than 90% surface cover shall be treated again prior to
16 the end of timber operations. The RPF may propose alternative treatments
17 that will achieve the same level of erosion control and sediment discharge
18 prevention.

19 (4) Where the undisturbed natural ground cover cannot effectively
20 protect beneficial uses of water from timber operations, the ground shall be
21 treated by measures including, but not limited to, seeding, mulching, or
22 replanting, in order to retain and improve its natural ability to filter
23 sediment, minimize soil erosion, and stabilize banks of watercourses and
24 lakes.

25 (o) As part of the plan, the RPF shall identify active erosion sites in
the logging area, assess them to determine which sites pose significant risks

1 to the beneficial uses of water, assess them to determine whether feasible
2 remedies exist, and address in the plan feasible remediation for all sites
3 that pose significant risk to the beneficial uses of water.

4 (p) The erosion control maintenance period on permanent and seasonal
5 roads and associated landings that are not abandoned in accordance with 14
6 CCR 923.8 shall be three years.

7 (q) Site preparation activities shall be designed to prevent soil
8 disturbance within, and minimize soil movement into, the channels of
9 watercourses. Prior to any broadcast burning, burning prescriptions shall be
10 designed to prevent loss of large woody debris in watercourses, and
11 vegetation and duff within a WLPZ, or within any ELZ or EEZ designated for
12 watercourse or lake protection. No ignition is to occur within any WLPZ, or
13 within any ELZ or EEZ designated for watercourse or lake protection. When
14 burning prescriptions are proposed, the measures or burning restrictions
15 which are intended to accomplish this goal shall be stated in the plan and
16 included in any required burning permit. This information shall be provided
17 in addition to the information required under 14 CCR 915.4 [935.4, 955.4].

18 (r) Water drafting for timber operations from within a channel zone of
19 a natural watercourse or from a lake shall conform with the following
20 standards:

21 (1) The RPF shall incorporate into the THP:
22 (A) a description and map of proposed water drafting locations,
23 (B) the watercourse or lake classification, and
24 (C) the general drafting location use parameters (i.e., yearly timing,
25 estimated total volume needed, estimated total uptake rate and filling time,
and associated water drafting activities from other THPs).

1 (2) On Class I and Class II streams where the RPF has estimated that:
2 (A) bypass flows are less than 2 cubic feet per second, or
3 (B) pool volume at the water drafting site would be reduced by 10%, or
4 (C) diversion rate exceeds 350 gallons per minute, or
5 (D) diversion rate exceeds 10% of the above surface flow;
6 no water drafting shall occur unless the RPF prepares a water drafting
7 plan to be reviewed by DFG and approved by the Director.

8 The water drafting plan shall include, but not be limited to:
9 1. disclosure of estimated percent streamflow reduction and duration of
10 reduction,
11 2. discussion of the effects of single pumping operations, or multiple
12 pumping operations at the same location,
13 3. proposed alternatives and discussion to prevent adverse effects
14 (e.g. reduction in hose diameter, reduction in total intake at one location,
15 described allowances for recharge time, and alternative water drafting
16 locations),
17 4. conditions for operators to include an operations log kept on the
18 water truck containing the following information: Date, Time, Pump Rate,
19 Filling Time, Screen Cleaned, Screen Conditions, and Bypass flow
20 observations,
21 5. a statement by the RPF for a pre-operations field review with the
22 operator to discuss the conditions in the water drafting plan.

23 (3) Intakes shall be screened in Class I and Class II waters. Screens
24 shall be designed to prevent the entrainment or impingement of all life
25 stages of fish or amphibians. Screen specifications shall be included in the
plan.

1 (4) Approaches to drafting locations within a WLPZ shall be surfaced
2 with rock or other suitable material to avoid generation of sediment.

3 (s) No timber operations are allowed in a WLPZ, or within any ELZ or
4 EEZ designated for watercourse or lake protection, under emergency notices or
5 exemption notices except for hauling on existing roads, road maintenance, and
6 operations conducted for public safety.

7 (t) No salvage logging is allowed in a WLPZ without an approved HCP, an
8 SYP, or an approved plan that contains a section that sets forth objectives,
9 goals, and measurable results for streamside salvage operations.

10 (u) Nonstandard practices (i.e., waivers, exceptions, in-lieu
11 practices, and alternative practices) shall comply with the goal set forth in
12 subsection (a) above as well as with the other requirements set forth in the
13 rules.

14 (v) The Director may approve alternatives provided the alternative
15 practice will achieve the goal of this section. The Director shall not
16 accept for inclusion in a plan any alternative practice as described in this
17 section where two or more agencies listed in 4582.6 of the PRC and 14 CCR
18 1037.3 have submitted written comments which lead to the Director's
19 conclusion that the proposed alternative will not meet the goal of this
20 section and the agency(ies) participated in the review of the plan, including
21 an on-the-ground inspection.

22 (w) Other measures that would effectively achieve the goal set forth in
23 14 CCR 916.9(a) [936.9(a), 956.9(a)] may be approved in accordance with 14
24 CCR 916.6 [936.6, 956.6].

1 (x) The provisions of 14 CCR 916.9 [936.9, 956.9] shall not apply to a
2 plan that is subject to an incidental take permit based upon an approved
3 Habitat Conservation Plan that addresses anadromous salmonid protection.

4 (y) This section shall expire on December 31, 2000.

5
6 Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources
7 Code. Reference: Sections 751, 4512, 4513, 4551.5, 21000(g), 21001(b) and
8 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code; and
9 Sections 1600 and 5650(c), Fish and Game Code.

10
11 **Adopt §§ 916.11, 936.11, and 956.11 Effectiveness and Implementation**

12 **Monitoring**

13 (a) Where timber operations will be conducted within a WLPZ, the
14 Director may require a post-harvest evaluation of the effectiveness of the
15 mitigations and practices designed to protect the watercourse(s) or lake(s)
16 as a condition of plan approval. The Director shall require such an
17 evaluation if the necessity for the evaluation is supported by substantial
18 evidence in the record. This evidence may include, but is not limited to,
19 potential land failures, accelerated rate of road construction or harvesting
20 within a watershed, concentration or intensity of harvesting activity near
21 watercourses, and potential for accelerated windthrow. The design and
22 implementation of the evaluation shall be done in consultation with the
23 Director, the RWQCB or DFG, and THP submitter, and the sufficiency of the
24 information requested by the Director shall be judged in light of
25 reasonableness and practicality. The evaluation may utilize procedures
including, but not limited, to:

1 (1) Procedures for effectiveness and implementation monitoring,

2 (2) Existing landowner monitoring programs, or

3 (3) Photographic monitoring

4 (b) This section shall expire on December 31, 2000.

5
6 Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources
7 Code. Reference: Sections 751, 4512, 4513, 4551.5, 21000(g), 21001(b) and
8 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code; and
9 Sections 1600 and 5650(c), Fish and Game Code.

10
11 **Adopt §§ 916.12, 936.12, and 956.12 Section 303(d) Listed Watersheds**

12 For any planning watershed in which timber operations could contribute
13 to the pollutants or stressors which have been identified as limiting water
14 quality in a water body listed pursuant to 303(d) Federal Clean Water Act,
15 the following shall apply:

16 (a) The Department shall, in collaboration with the appropriate RWQCB
17 and SWRCB, prioritize watersheds in which the following will be done: 1)
18 conduct or participate in any further assessment or analysis of the watershed
19 that may be needed, 2) participate in the development of Total Maximum Daily
20 Load (TMDL) problem assessment, source assessment, or load allocations
21 related to timber operations, and 3) if existing rules are deemed not to be
22 sufficient, develop recommendations for watershed-specific silvicultural
23 implementation, enforcement and monitoring practices to be applied by the
24 Department.

25 (b) The Department shall prepare a report setting forth the
 Department's findings and recommendations from the activities identified

1 pursuant to (a) above. The report shall be submitted to the Board and the
2 appropriate RWQCB. The report shall be made available to the public upon
3 request and placed on the Boards' website for a 90-day period.

4 (c) Where the Department has recommended that the adoption of watershed
5 specific rules is needed, the Board shall consider that recommendation as a
6 proposal for rulemaking under the Administrative Procedures Act (Section
7 11340 et. seq. Gov Code) and shall begin that process within 180 days
8 following receipt of that report.

9 (d) These watershed specific rules shall be developed in collaboration
10 with the appropriate RWQCB, the landowner(s) or designee with land in the
11 planning watershed, and other persons or groups within the watershed, and may
12 also be incorporated into a TMDL implementation plan.

13 (e) The watershed specific rules shall remain in effect until the
14 water body has been removed from the 303(d) list, or that the Board finds,
15 after consulting with the appropriate RWQCB, that timber operations are no
16 longer a significant source of the pollutant or stressor that limits water
17 quality in the listed water body.

18 (f) This section shall expire on December 31, 2000.

19
20 Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources
21 Code. Reference: Sections 751, 4512, 4513, 4551.5, 21000(g), 21001(b) and
22 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code; and
23 Sections 1600 and 5650(c), Fish and Game Code.

1 **Amend §§ 923.3, 943.3, and 963.3 Watercourse Crossings**

2 Watercourse crossing drainage structures on logging roads shall be
3 planned, constructed, reconstructed, and maintained or removed, according to
4 the following standards. Exceptions may be provided through application of
5 Fish and Game Code Sections 1601 and 1603 and shall be included in the THP.

6
7 (a) The location of all new permanent watercourse crossing drainage
8 structures and temporary crossings located within the WLPZ shall be shown on
9 the THP map. If the structure is a culvert intended for permanent use, the
10 minimum diameter of the culvert shall be specified in the plan. Extra
11 culverts beyond those shown in the THP map may be installed as necessary.

12 (b) The number of crossings shall be kept to a feasible minimum.

13 (c) Drainage structures on watercourses that support fish shall allow
14 for unrestricted passage of all life stages of fish that may be present, and
15 shall be fully described in the plan in sufficient clarity and detail to
16 allow evaluation by the review team and the public, provide direction to the
17 LTO for implementation, and provide enforceable standards for the inspector.

18 (d) When watercourse crossings, other drainage structures, and
19 associated fills are removed the following standards shall apply:

20 (1) Fills shall be excavated to form a channel ~~which~~ that is as close
21 as feasible to the natural watercourse grade and orientation, and that is
22 wider than the natural channel.

23 (2) The excavated material and any resulting cut bank shall be sloped
24 back from the channel and stabilized to prevent slumping and to minimize soil
25 erosion. Where needed, this material shall be stabilized by seeding,
26 mulching, rock armoring, or other suitable treatment.

27 (e) All permanent watercourse crossings that are constructed or
28 reconstructed shall accommodate the estimated 100-year flood flow, including
29 debris and sediment loads.

1 (e~~f~~) Permanent watercourse crossings and associated fills and
2 approaches shall be constructed or maintained to prevent diversion of stream
3 overflow down the road and to minimize fill erosion should the drainage
4 structure become obstructed. The RPF may propose an exception where
5 explained in the THP and shown on the THP map and justified how the
6 protection provided by the proposed practice is at least equal to the
7 protection provided by the standard rule.

8 (g) Any new permanent culverts installed within class I watercourses
9 shall allow upstream and downstream passage of fish or listed aquatic species
10 during any life stage and for the natural movement of bedload to form a
11 continuous bed through the culvert and shall require an analysis and
12 specifications demonstrating conformance with the intent of this section and
13 subsection.

14 (h) The amendments to 14 CCR §§ 923.3 [943.3, 963.3] that became
15 effective July 1, 2000 shall expire on December 31, 2000.

16
17 Note: Authority cited: Sections 4551, 4551.5, and 21004, Public Resources
18 Code. Reference: Sections 4512, 4513, 4551, 4551.5, 4562.5 and 4562.7,
19 Public Resources Code; ~~33 USC Section 1288(b)~~, 40 CFR 130.2(q); and
California Case Law: *Natural Resources Defense Council, Inc. v. Arcata Natl.*
20 *Corp.* (1972) 59 Cal. App. #d 959, 131 Cal Rptr. 172.

21 **Adopt §§ 923.9 [943.9, 963.9] Roads and Landings in Watersheds with**
22 **Threatened or Impaired Values.**

23 In addition to all other district Forest Practice Rules, the following
24 requirements shall apply in any planning watershed with threatened or
25 impaired values:

1 (a) Where logging road or landing construction or reconstruction is
2 proposed, the plan shall state the locations of and specifications for road
3 or landing abandonment or other mitigation measures to minimize the adverse
4 effects of long-term site occupancy of the transportation system within the
5 watershed.

6 (b) Unless prohibited by existing contracts with the U.S.D.A. Forest
7 Service or other federal agency, new and reconstructed logging roads shall be
8 no wider than a single-lane compatible with the largest type of equipment
9 specified for use on the road, with adequate turnouts provided as required
10 for safety. The maximum width of these roads shall be specified in the plan.
11 These roads shall be outsloped where feasible and drained with water breaks
12 or rolling dips (where the road grade is inclined at 7 percent or less), in
13 conformance with other applicable Forest Practice Rules.

14 (c) The following shall apply on slopes greater than 50%:

15 (1) Specific provisions of construction shall be identified and
16 described for all new roads.

17 (2) Where cutbank stability is not an issue, roads may be constructed
18 as a full-benched cut (no fill). Spoils not utilized in road construction
19 shall be disposed of in stable areas with less than 30 percent slope and
20 outside of any WLPZ, EEZ, or ELZ.

21 (3) Alternatively, roads may be constructed with balanced cuts and
22 fills if properly engineered, or fills may be removed with the slopes
23 recontoured prior to the winter period.

24 (d) In addition to the provisions listed under 14 CCR 923.1(e)
25 [943.1(e), 963.1(e)], all permanent or seasonal logging roads with a grade of

1 15% or greater that extends 500 continuous feet or more shall have specific
2 erosion control measures stated in the plan.

3 (e) Where situations exist that elevate risks to the values set forth
4 in 14 CCR 916.2(a), [936.2(a), 956.2(a)] (e.g., road networks are remote, the
5 landscape is unstable, water conveyance features historically have a high
6 failure rate, culvert fills are large) drainage structures and erosion
7 control features shall be oversized, low maintenance, or reinforced, or they
8 shall be removed before the completion of the timber operation. The method
9 of analysis and the design for crossing protection shall be included in the
10 plan.

11 (f) The provisions of 14 CCR 923.9 [943.9, 963.9] shall not apply to a
12 plan that is subject to an incidental take permit based upon an approved
13 Habitat Conservation Plan that addresses anadromous salmonid protection.

14 (g) This section shall expire on December 31, 2000.

15
16 Note: Authority cited: Sections 4551, 4551.5, 4553, 4562.7 and 21000(g),
17 Public Resources Code. Reference: Sections 751, 4512, 4513, 4551, 4551.5,
18 4562.5, 4562.7, 21000(g), 21001(b) and 21002.1, Public Resources Code;
19 Sections 100, 1243, 13050(f) Water Code; Sections 1600 and 5650(c), Fish and
20 Game Code; and *Natural Resources Defense Council, Inc. v. Arcata Natl. Corp.*
21 (1976) 59 Cal.App. 3d 959, 131 Cal.Rptr. 172.

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25 doh: 05/31/2000
File: Final Rule Language (revised)